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TITLE: SHAVING BRUSH HAVING A CAVITY
FOR SHAVING CREAM

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SHAVING BRUSH HAVING A CAVITY FOR SHAVING CREAM

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FIELD OF THE INVENTION

In general, the invention relates to shaving brushes. More specifically, the invention relates to a shaving brush incorporating a technique for accepting
10 shaving creams (i.e., shaving gels, shaving foams, shaving soaps, etc.) within the shaving brush.

BACKGROUND OF THE INVENTION

Shaving creams for both males and females are known in the art for
15 lubricating and softening body hair (e.g., facial hair, underarm hair, hair on legs, etc.) to enable a smooth shave of the body hair by a razor blade, a knife blade, or any other type of blade. Shaving brushes as known in the art are used to lather and apply a shaving cream onto an area of the body in preparation for a comfortable shave of that particular body area. While known shaving brushes
20 adequately lather and apply a shaving cream onto an area of the body, there is a need to improve upon current shaving brushes.

SUMMARY OF THE INVENTION

The present invention provides an improved shaving brush having a cavity for accepting a shaving cream in preparation for applying the shaving cream to a particular area of the body.

One form of the present invention is a shaving brush comprising a bristle base and a plurality of brush bristles. The brush bristles extend from a surface of the bristle base, wherein a height of a first set of brush bristles is designed to be greater than a height of a second set of brush bristles to at least partially define a cavity for accepting a shaving cream.

In a further form of the present invention, the shaving brush includes a cap operable to be adjoined to the bristle base to define a shaving handle assembly and a storage case assembly. In the shaving handle assembly, the cavity of the brush bristles is exposed to allow an acceptance of the shaving cream within the cavity, and the bristle base and the cap serve as a handle. In the storage case assembly, the brush bristles are inserted through an opening of the cap, and the bristle base and the cap serve as a storage case.

The foregoing forms and other forms, features and advantages of the invention will become further apparent from the following detailed description of the presently preferred embodiment, read in conjunction with the accompanying drawings. The detailed description and drawings are merely illustrative of the invention rather than limiting, the scope of the invention being defined by the appended claims and equivalents thereof.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. 1 illustrates a cross-sectional side view of one embodiment of an unassembled shaving brush in accordance with the present invention;

5 **FIG. 2** illustrates a top view of one embodiment of a brush bristle arrangement in accordance with the present invention;

FIG. 3 illustrates a cross-sectional side view of a shaving handle assembly of the shaving brush illustrated in **FIG. 1**;

10 **FIG. 4** and **5** illustrate an exemplary operation of the shaving handle assembly of the shaving brush illustrated in **FIG. 1**; and

FIG. 6 illustrates a cross-sectional side view of a storage case assembly of the shaving brush illustrated in **FIG. 1**.

The drawings illustrated in **FIGS. 1-6** are not drawn to scale, but to facilitate an understanding of various principles of the present invention.

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DETAILED DESCRIPTION OF THE
PRESENTLY PREFERRED EMBODIMENT

FIG. 1 illustrates a shaving brush **10** of the present invention, which
5 employs a cap **20**, a bristle base **30**, and brush bristles **40**.

Cap **20** includes a hollow cylindrical body **21** having an opening **22**. An
annular rib **23** extends along an inner surface of body **21** adjacent opening **22**.
Cap **20** is preferably made from plastic, but can be made from other suitable
material such as, for example, wood, metal or rubber. In practice, the
10 dimensions and shape of cap **20** are dependent upon commercial
implementation(s) of shaving brush **10**, and are therefore without limit.

Bristle base **30** includes a hollow cylindrical body **31** having a serrated ribs
32 extending along an outer surface of body **31**. An annular rib **33** extends along
the outer surface of body **31** adjacent a top end of ribs **32**. An annular rib **34**
15 extends along the outer surface of body **31** adjacent a bottom end of ribs **32**.
Bristle base **30** is preferably made from plastic, but can be made from other
suitable material such as, for example, wood, metal or rubber. In practice, the
dimensions and shape of bristle base **30** are also dependent upon commercial
implementation(s) of shaving brush **10**, and are therefore without limit.

20 Brush bristles **40** upwardly extend from a top surface of body **31**. Brush
bristles **40** include an outer layer of brush bristles **41** and an inner core of brush
bristles **42**. A height h_1 of brush bristles **41** is designed to be greater than a
height h_2 of brush bristles **42** to thereby define a cylindrical cavity **43** above brush
bristles **42** and extending along an inner diameter of brush bristles **41**.
25 Preferably, cavity **43** is formed in accordance with the following equation [1]

$$h_1 = 2(h_2)$$

[1]

Brush bristles **40** are preferably made from nylon or animal's hair (e.g., a boar's hair), but can be made from other suitable material. In practice, the dimensions and shape of brush bristles **40** are also dependent upon commercial implementation(s) of shaving brush **10**, and are therefore without limit.

FIG. 2 illustrates one arrangement of bristles holes on a top surface **31a** of body **31** for attaching brush bristles **40** to bristle base **30**. The arrangement includes a center hole **35** and a bristle ring **36** of eight (8) holes for conventionally attaching brush bristles **42** (**FIG. 1**) to body **31**. The arrangement further includes a bristle ring **37** of thirteen (13) holes and a bristle ring **38** of twenty-five (25) holes for conventionally attaching brush bristles **41** (**FIG. 1**) to body **31**. In practice, the number of bristle rings and the number of holes per each bristle ring are also dependent upon commercial implementation(s) of shaving brush **10**, and are therefore without limit.

In one alternative embodiment, center hole **35** and bristle ring **38** are used for conventionally attaching brush bristles **41** to body **31**, and bristle rings **36** and **37** are used for conventionally attaching brush bristles **42** to body **31**. The resulting cavity would have an annular shape as compared to the cylindrical shape of cavity **43** (**FIG. 1**). In practice, the number of cavities and the shape of each cavity are also dependent upon commercial implementation(s) of shaving brush **10**, and are therefore without limit.

FIG. 3 illustrates a shaving handle assembly of shaving brush **10**, which is defined by an adjoining of cap **20** to a bottom end of bristle base **30**. In this assembly, cavity **43** is exposed to a user of shaving brush **10** whereby cavity **43** can be filled with shaving cream ("SC") as shown, and serrated ribs **32** and body **21** serve as a shaving handle for rotating shaving brush **10** in a circular or swirling motion during a lathering of the shaving cream contained with cavity **43** onto an area of a body (e.g., a beard). Additionally, serrated ribs **32** provide a gripping surface of the shaving brush **10** during the lathering of the shaving cream onto the area of the body. Concurrently or alternatively, cap **20** can include one or more serrated ribs extending along an outer surface of body **21**.

FIGS. 4 and 5 illustrate an exemplary operation of the shaving handle assembly of shaving brush **10**. First, as illustrated in **FIG. 4**, shaving brush **10** is placed in a loading position to accept shaving cream within cavity **43** via an aerosol can **50**. In this loading position, a longitudinal axis of cavity **43** is vertical as indicated by the y-axis. Second, as illustrated in **FIG. 5**, shaving brush **10** is placed in a lathering position in order to apply the shaving cream within cavity **43** to the face of the user. In this lathering position, a longitudinal axis of cavity **43** is horizontal as indicated by the x-axis.

10 The exemplary operation of the shaving brush assembly of shaving brush **10** as illustrated in **FIGS. 4 and 5** highlights the retention of shaving cream **SC** within cavity **43** despite cavity **43** being horizontal, particularly when cavity **43** is formed in accordance with equation [1] herein. This is one unique advantage of the present invention over the known shaving brushes.

15 In an alternative embodiment, bristle base **30** can be exclusively designed to serve as the handle whereby cap **20** is set-aside during a loading of shaving cream **SC** within cavity **43** and the subsequent application of the shaving cream **SC** onto a user of a shaving brush of the present invention.

20 In another alternative embodiment, a designed handle can be adjoined to bristle base **30** whereby cap **20** is again set-aside during a loading of shaving cream **SC** within cavity **43** and the subsequent application of the shaving cream **SC** onto a user of a shaving brush of the present invention.

25 **FIG. 6** illustrates a storage case assembly of shaving brush **10**, which is defined by an adjoining of cap **20** to a top end of brush base **30**. In this assembly, brush bristles **40** are inserted within the opening **22** of body **21**, and body **21** and body **31** serve as storage case for brush bristles **40**.

Referring to **FIGS. 3 and 6**, the adjoining of cap **20** to the bottom end of brush base **30** is accomplished by a conventional snapping of rib **23** over rib **34**, and the adjoining of cap **20** to the top end of brush base **30** is accomplished by a conventional snapping of rib **23** over rib **33**. Alternatively, other techniques can be employed to adjoin cap **20** to either end of brush base **30**. In one alternative embodiment, conventional screwing threads in lieu ribs **23**, **33** and **34** extend along the inner surface of body **21** and the outer surface of body **31** whereby cap **20** can be screwed onto the top end or the bottom end of body **31**. In another alternative embodiment, conventional prongs and holes in lieu of ribs **23**, **33** and **34** are formed on the inner surface of body **21** and the outer surface of body **31**, respectively, whereby cap **21** can be snapped onto the top end or the bottom end of body **31**. In practice, the actual technique implemented for adjoining cap **20** to brush base **30** in the shaving handle assembly and the storage case assembly is dependent upon the commercial implementation(s) of shaving brush **10**, and is therefore without limit.

The present invention may be embodied in other specific forms without departing from its essential characteristics. The described embodiments are to be considered in all respects only as illustrative and not restrictive. The scope of the invention is, therefore, indicated by the appended claims rather than by the foregoing description. All changes that come within the meaning and range of equivalency of the claims are to be embraced within their scope.